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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/896,580A

DATE: 09/03/2002 P.6
TIME: 15:37:15

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\09032002\I896580A.raw

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3 <110> APPLICANT: Baldwin, Eric
4      Harris, Melissa
6 <120> TITLE OF INVENTION: CRYSTALLIZATION AND STRUCTURE OF STAPHYLOCOCCUS AUREUS
PEPTIDE
7      DEFORMYLASE
9 <130> FILE REFERENCE: 268.6317 0101
11 <140> CURRENT APPLICATION NUMBER: 09/896,580A
C--> 12 <141> CURRENT FILING DATE: 2002-08-19
14 <150> PRIOR APPLICATION NUMBER: 60/215,555
15 <151> PRIOR FILING DATE: 2000-06-30
17 <150> PRIOR APPLICATION NUMBER: 60/215,550
18 <151> PRIOR FILING DATE: 2000-06-30
20 <160> NUMBER OF SEQ ID NOS: 11
22 <170> SOFTWARE: PatentIn version 3.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 213
26 <212> TYPE: PRT
27 <213> ORGANISM: Staphylococcus aureus
29 <400> SEQUENCE: 1
31 Met Tyr Glu Tyr Leu Asn Asn Leu Phe Thr Val Ile Gln Leu Lys Gln
32 1          5          10          15
34 Ile Lys Ile Arg Lys Val Gln Tyr Met Leu Thr Met Lys Asp Ile Ile
35          20          25          30
37 Arg Asp Gly His Pro Thr Leu Arg Gln Lys Ala Ala Glu Leu Glu Leu
38          35          40          45
40 Pro Leu Thr Lys Glu Glu Lys Glu Thr Leu Ile Ala Met Arg Glu Phe
41          50          55          60
43 Leu Val Asn Ser Gln Asp Glu Glu Ile Ala Lys Arg Tyr Gly Leu Arg
44 65          70          75          80
46 Ser Gly Val Gly Leu Ala Ala Pro Gln Ile Asn Ile Ser Lys Arg Met
47          85          90          95
49 Ile Ala Val Leu Ile Pro Asp Asp Gly Ser Gly Lys Ser Tyr Asp Tyr
50          100         105         110
52 Met Leu Val Asn Pro Lys Ile Val Ser His Ser Val Gln Glu Ala Tyr
53          115         120         125
55 Leu Pro Thr Gly Glu Gly Cys Leu Ser Val Asp Asp Asn Val Ala Gly
56          130         135         140
58 Leu Val His Arg His Asn Lys Ile Thr Ile Lys Ala Lys Asp Ile Glu
59 145         150         155         160
61 Gly Asn Asp Ile Gln Leu Arg Leu Lys Gly Tyr Pro Ala Ile Val Phe
62          165         170         175
64 Gln His Glu Ile Asp His Leu Asn Gly Val Met Phe Tyr Asp His Ile
65          180         185         190
67 Asp Lys Asp His Pro Leu Gln Pro His Thr Asp Ala Val Glu Val His

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68          195          200          205
70 Gln His His His His
71          210
73 <210> SEQ ID NO: 2
74 <211> LENGTH: 168
75 <212> TYPE: PRT
76 <213> ORGANISM: Escherichia coli
78 <400> SEQUENCE: 2
80 Ser Val Leu Gln Val Leu His Ile Pro Asp Glu Arg Leu Arg Lys Val
81 1          5          10          15
83 Ala Lys Pro Val Glu Glu Val Asn Ala Glu Ile Gln Arg Ile Val Asp
84          20          25          30
86 Asp Met Phe Glu Thr Met Tyr Ala Glu Glu Gly Ile Gly Leu Ala Ala
87          35          40          45
89 Thr Gln Val Asp Ile His Gln Arg Ile Ile Val Ile Asp Val Ser Glu
90          50          55          60
92 Asn Arg Asp Glu Arg Leu Val Leu Ile Asn Pro Glu Leu Leu Glu Lys
93 65          70          75          80
95 Ser Gly Glu Thr Gly Ile Glu Glu Gly Cys Leu Ser Ile Pro Glu Gln
96          85          90          95
98 Arg Ala Leu Val Pro Arg Ala Glu Lys Val Lys Ile Arg Ala Leu Asp
99          100          105          110
101 Arg Asp Gly Lys Pro Phe Glu Leu Glu Ala Asp Gly Leu Leu Ala Ile
102          115          120          125
104 Cys Ile Gln His Glu Met Asp His Leu Val Gly Lys Leu Phe Met Asp
105          130          135          140
107 Tyr Leu Ser Pro Leu Lys Gln Gln Arg Ile Arg Gln Lys Val Glu Lys
108 145          150          155          160
110 Leu Asp Arg Leu Lys Ala Arg Ala
111          165
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 169
115 <212> TYPE: PRT
116 <213> ORGANISM: Haemophilus influenzae
118 <400> SEQUENCE: 3
120 Met Thr Ala Leu Asn Val Leu Ile Tyr Pro Asp Asp His Leu Lys Val
121 1          5          10          15
123 Val Cys Glu Pro Val Thr Lys Val Asn Asp Ala Ile Arg Lys Ile Val
124          20          25          30
126 Asp Asp Met Phe Asp Thr Met Tyr Gln Glu Lys Gly Ile Gly Leu Ala
127          35          40          45
129 Ala Pro Gln Val Asp Ile Leu Gln Arg Ile Ile Thr Ile Asp Val Glu
130          50          55          60
132 Gly Asp Lys Gln Asn Gln Phe Val Leu Ile Asn Pro Glu Ile Leu Ala
133 65          70          75          80
135 Ser Glu Gly Glu Thr Gly Ile Glu Glu Gly Cys Leu Ser Ile Pro Gly
136          85          90          95
138 Phe Arg Ala Leu Val Pro Arg Lys Glu Lys Val Thr Val Arg Ala Leu
139          100          105          110

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141 Asp Arg Asp Gly Lys Glu Phe Thr Leu Asp Ala Asp Gly Leu Leu Ala
142      115      120      125
144 Ile Cys Ile Gln His Glu Ile Asp His Leu Asn Gly Ile Leu Phe Val
145      130      135      140
147 Asp Tyr Leu Ser Pro Leu Lys Arg Gln Arg Ile Lys Glu Lys Leu Ile
148 145 --      150      155      160
150 Lys Tyr Lys Lys Gln Ile Ala Lys Ser
151      165

```

153 <210> SEQ ID NO: 4

154 <211> LENGTH: 160

155 <212> TYPE: PRT

156 <213> ORGANISM: Bacillus subtilis

158 <400> SEQUENCE: 4

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160 Met Ala Val Lys Lys Val Val Thr His Pro Ala Glu Val Leu Glu Thr
161 1      5      10      15
163 Pro Ala Glu Thr Val Thr Val Phe Asp Lys Lys Leu Lys Lys Leu Leu
164      20      25      30
166 Asp Asp Met Tyr Asp Thr Met Leu Glu Met Asp Gly Val Gly Leu Ala
167      35      40      45
169 Ala Pro Gln Ile Gly Ile Leu Lys Arg Ala Ala Val Val Glu Ile Gly
170      50      55      60
172 Asp Asp Arg Gly Arg Ile Asp Leu Val Asn Pro Glu Ile Leu Glu Lys
173 65      70      75      80
175 Ser Gly Glu Gln Thr Gly Ile Glu Gly Cys Leu Ser Phe Pro Asn Val
176      85      90      95
178 Tyr Gly Asp Val Thr Arg Ala Asp Tyr Val Lys Val Arg Ala Phe Asn
179      100      105      110
181 Arg Gln Gly Lys Pro Phe Ile Leu Glu Ala Arg Gly Phe Leu Ala Arg
182      115      120      125
184 Ala Val Gln His Glu Met Asp His Leu Asp Gly Val Leu Phe Thr Ser
185      130      135      140
187 Lys Ile Ser Lys Tyr Tyr Thr Glu Asp Glu Leu Ala Asp Met Glu Gly
188 145      150      155      160

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190 <210> SEQ ID NO: 5

191 <211> LENGTH: 216

192 <212> TYPE: PRT

193 <213> ORGANISM: Mycoplasma pneumoniae

195 <400> SEQUENCE: 5

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197 Met Thr Lys Ile Leu Pro Val Ser Thr Ile Ser Ile Phe Arg Ile Ile
198 1      5      10      15
200 Leu Ile Leu Pro Gln Ile Asn Met Glu Leu Leu Pro Thr Lys Ala Trp
201      20      25      30
203 Leu Val Leu Asp Asp Val Lys Glu Ile Asn Glu Pro Thr Lys Pro Val
204      35      40      45
206 Gln Phe Pro Leu Asp Gln Ala Ser Leu Asp Cys Ile Ala Lys Met Met
207      50      55      60
209 Ala Tyr Val Asp Ala Ser Tyr Asn Gly Asp Ala Glu Lys Tyr Gly Ile
210 65      70      75      80
212 Ile Pro Gly Ile Gly Ile Ala Ala Asn Gln Ile Gly Tyr Trp Lys Gln

```

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```

213           85           90           95
215 Met Phe Tyr Ile His Leu Met Asp Gly Gly Val Glu His Lys Cys Leu
216           100          105          110
218 Leu Ile Asn Pro Lys Ile Ile Asn Leu Ser Ala Asn Lys Ser Phe Leu
219           115          120          125
221 Lys Ser Gly Glu Gly Cys Leu Ser Val Pro Lys Met His Gln Gly Tyr
222           130          135          140
224 Val Ile Arg His Glu Trp Ile Thr Ile Thr Gly Phe Asp Trp Leu Gln
225 145           150          155          160
227 Gln Lys Glu Ile Thr Ile Thr Ala Thr Gly Leu Phe Gly Met Cys Leu
228           165          170          175
230 Gln His Glu Phe Asp His Leu Gln Gly Arg Phe Tyr Tyr His Arg Ile
231           180          185          190
233 Asn Pro Leu Asn Pro Leu Phe Thr Asn Lys Glu Trp Lys Val Ile Asn
234           195          200          205
236 Pro Ala Leu Pro Ser Asp Ser Glu
237           210          215
239 <210> SEQ ID NO: 6
240 <211> LENGTH: 170
241 <212> TYPE: PRT
242 <213> ORGANISM: Staphylococcus aureus
244 <400> SEQUENCE: 6
246 Met Ala Ile Lys Lys Leu Val Pro Ala Ser His Pro Ile Leu Thr Lys
247 1           5           10           15
249 Lys Ala Gln Ala Val Lys Thr Phe Asp Asp Ser Leu Lys Arg Leu Leu
250           20           25           30
252 Gln Asp Leu Glu Asp Thr Met Tyr Ala Gln Glu Ala Ala Gly Leu Cys
253           35           40           45
255 Ala Pro Gln Ile Asn Gln Ser Leu Gln Val Ala Ile Ile Asp Met Glu
256           50           55           60
258 Met Glu Gly Leu Leu Gln Leu Val Asn Pro Lys Ile Ile Ser Gln Ser
259 65           70           75           80
261 Asn Glu Thr Ile Thr Asp Leu Glu Gly Ser Ile Thr Leu Pro Asp Val
262           85           90           95
264 Tyr Gly Glu Val Thr Arg Ser Lys Met Ile Val Val Glu Ser Tyr Asp
265           100          105          110
267 Val Asn Gly Asn Lys Val Glu Leu Thr Ala His Glu Asp Val Ala Arg
268           115          120          125
270 Met Ile Leu His Ile Ile Asp Gln Met Asn Gly Ile Pro Phe Thr Glu
271           130          135          140
273 Arg Ala Asp Arg Ile Leu Thr Asp Lys Glu Val Glu Ala Tyr Phe Ile
274 145          150          155          160
276 Asn Asp Arg Ser His His His His His His
277           165          170
279 <210> SEQ ID NO: 7
280 <211> LENGTH: 172
281 <212> TYPE: PRT
282 <213> ORGANISM: Staphylococcus aureus
284 <400> SEQUENCE: 7

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286 Met Leu Thr Met Lys Asp Ile Ile Arg Asp Gly His Leu Arg Gln Lys
287 1 5 10 15
289 Ala Ala Glu Ile Glu Leu Pro Leu Thr Glu Glu Lys Glu Thr Leu Ile
290 20 25 30
292 Met Arg Glu Phe Leu Val Asn Ser Gln Asp Glu Glu Ile Ala Lys Arg
293 35 40 45
295 Tyr Gly Gly Val Gly Leu Ala Ala Pro Gln Ile Asn Ile Ser Lys Arg
296 50 55 60
298 Met Ile Ala Val Leu Ile Pro Asp Asp Gly Ser Gly Lys Ser Tyr Asp
299 65 70 75 80
301 Leu Val Asn Pro Lys Ile Val Ser Ser Val Gln Glu Ala Tyr Leu Pro
302 85 90 95
304 Thr Glu Gly Cys Leu Val Asp Asp Asn Val Ala Leu Val His Arg His
305 100 105 110
307 Asn Arg Ile Ile Lys Ala Lys Asp Ile Glu Gly Asn Asp Ile Gln Leu
308 115 120 125
310 Arg Leu Lys Gly Tyr Pro Ala Ile Val Phe Gln His Glu Ile Asp His
311 130 135 140
313 Ile Asn Gly Val Met Phe Tyr Asp His Ile Asp Lys Asp His Pro Leu
314 145 150 155 160
316 Gln Pro His Thr Asp Ala Val Glu Val His His His
317 165 170
319 <210> SEQ ID NO: 8
320 <211> LENGTH: 138
321 <212> TYPE: PRT
322 <213> ORGANISM: Escherichia coli
324 <400> SEQUENCE: 8
326 Ser Val Leu Arg Lys Val Ala Lys Pro Val Glu Glu Val Glu Ile Gln
327 1 5 10 15
329 Arg Ile Val Asp Met Phe Glu Thr Met Tyr Gly Ile Gly Leu Ala Ala
330 20 25 30
332 Thr Gln Val Asp Ile His Gln Arg Ile Ile Val Ile Asp Val Ser Glu
333 35 40 45
335 Asn Leu Ile Asn Pro Glu Leu Leu Glu Ser Gly Glu Thr Gly Ile Glu
336 50 55 60
338 Gly Cys Leu Ile Pro Glu Gln Arg Leu Val Pro Arg Ala Glu Lys Val
339 65 70 75 80
341 Ile Arg Ala Leu Asp Arg Asp Gly Lys Pro Phe Glu Leu Glu Ala Asp
342 85 90 95
344 Gly Leu Ile Ala Ile Cys Ile Gln His Glu Met Asp His Leu Val Gly
345 100 105 110
347 Lys Leu Phe Met Asp Tyr Leu Ser Pro Leu Lys Gln Gln Arg Ile Arg
348 115 120 125
350 Gln Lys Val Glu Lys Leu Asp Arg Leu Lys
351 130 135
353 <210> SEQ ID NO: 9
354 <211> LENGTH: 6
355 <212> TYPE: PRT
C--> 356 <213> ORGANISM: Artificial

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/896,580A

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 2
Seq#:11; Xaa Pos. 2,3,7

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:9,10,11

VERIFICATION SUMMARY

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Input Set : A:\PTO.VSK.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:356 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:375 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:388 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:407 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0